

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 30 March 2000 (30.03.00)	
<b>International application No.</b> PCT/GB99/02691	<b>Applicant's or agent's file reference</b> RSJ05875WO
<b>International filing date (day/month/year)</b> 16 August 1999 (16.08.99)	<b>Priority date (day/month/year)</b> 18 August 1998 (18.08.98)
<b>Applicant</b> KNIGHT, Richard, John et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
10 February 2000 (10.02.00)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740 14 35

Authorized officer

Jean-Marc Vivet

Telephone No.: (41-22) 338.83.38

## PATENT COOPERATION TREATY

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NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

GILL JENNINGS & EVERY  
Broadgate House  
7 Eldon Street  
London EC2M 7LH  
ROYAUME-UNI

Date of mailing (day/month/year)

01 December 2000 (01.12.00)

Applicant's or agent's file reference

RSJ05875WO

## IMPORTANT NOTIFICATION

International application No.

PCT/GB99/02691

International filing date (day/month/year)

16 August 1999 (16.08.99)

## 1. The following indications appeared on record concerning:



the applicant



the inventor



the agent



the common representative

Name and Address

MADGE NETWORKS LIMITED  
100 Lodge Lane  
Chalfont St. Giles  
Bucks HP8 4AH  
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:



the person



the name



the address



the nationality



the residence

Name and Address

MADGE NETWORKS LIMITED  
Wexham Springs  
Framework Road  
Wexham, Slough SL3 6PJ  
United Kingdom

State of Nationality

GB

State of Residence

GB

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:



the receiving Office



the International Searching Authority



the International Preliminary Examining Authority



the designated Offices concerned



the elected Offices concerned



other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

I. Britel

Telephone No.: (41-22) 338.83.38

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

FINNIE, Peter, J.  
Gill Jennings & Every  
Broadgate House  
7 Eldon Street  
London EC2M 7LH  
ROYAUME-UNI

Date of mailing (day/month/year) 30 January 2001 (30.01.01)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference RSJ05875WO	
International application No. PCT/GB99/02691	International filing date (day/month/year) 16 August 1999 (16.08.99)

## 1. The following indications appeared on record concerning:

☐ the applicant      ☐ the inventor      ☒ the agent      ☐ the common representative

Name and Address GILL JENNINGS & EVERY Broadgate House 7 Eldon Street London EC2M 7LH United Kingdom	State of Nationality	State of Residence
	Telephone No. +44 171 377 1377	
	Facsimile No. +44 171 377 1310	
	Teleprinter No.	

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person      ☒ the name      ☐ the address      ☐ the nationality      ☐ the residence

Name and Address FINNIE, Peter, J. Gill Jennings & Every Broadgate House 7 Eldon Street London EC2M 7LH United Kingdom	State of Nationality	State of Residence
	Telephone No. +44 20 73 77 1377	
	Facsimile No. +44 20 73 77 1310	
	Teleprinter No.	

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

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<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer R. Raissi Telephone No.: (41-22) 338.83.38
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WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>H04L 12/56, 12/44</b>	<b>A1</b>	(11) International Publication Number: <b>WO 00/11841</b>
		(43) International Publication Date: 2 March 2000 (02.03.00)

(21) International Application Number: PCT/GB99/02691

(22) International Filing Date: 16 August 1999 (16.08.99)

(30) Priority Data:  
9818022.7 18 August 1998 (18.08.98) GB  
9822113.8 9 October 1998 (09.10.98) GB

(71) Applicant (for all designated States except US): MADGE NETWORKS LIMITED [GB/GB]; 100 Lodge Lane, Chalfont St. Giles, Bucks HP8 4AH (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KNIGHT, Richard, John [GB/GB]; 5 Ellery Rise, Frieth, Nr Henley-on-Thames, Oxon RG9 6PH (GB). COLEMAN, Trevor, John [GB/GB]; 16 Stanley Hill Avenue, Amersham, Bucks HP7 9BD (GB).

(74) Agent: GILL JENNINGS & EVERY; Broadgate House, 7 Eldon Street, London EC2M 7LH (GB).

(81) Designated States: US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

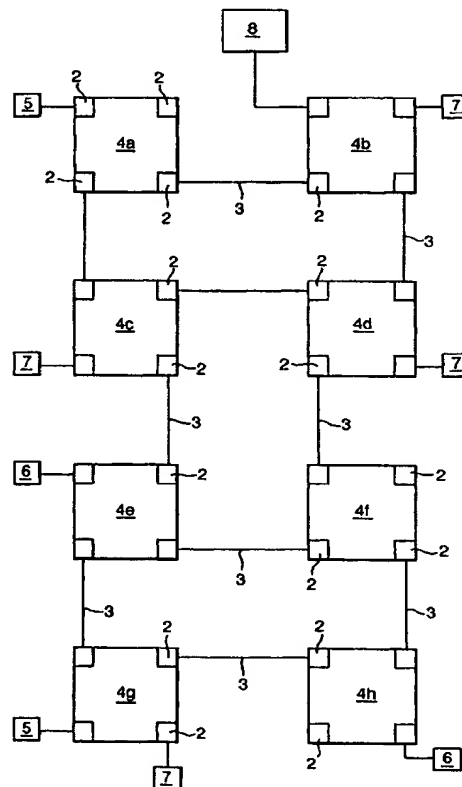
**Published**

*With international search report.*

(54) Title: METHOD AND SYSTEM FOR PRIORITISED CONGESTION CONTROL IN A SWITCHING HUB

(57) Abstract

The present invention relates to a communications network for transferring data in accordance with a transfer priority number. The network has a number of switching nodes (4) which transfer data between end stations (5, 6, 7) coupled to the network. Each switching node (4) has a store (24) for storing data prior to transfer, a monitor for monitoring the volume of data being transferred through the switching node, a comparator for comparing the volume of data to a predetermined threshold, and a signal generator for generating a congestion signal if the respective volume of traffic exceeds the predetermined threshold. In this case the adjacent switching nodes (4) and/or end stations (5, 6, 7) respond to the congestion signal to temporarily store at least some of the data to be transferred via the respective switching node (4). The data which is stored is selected based upon its priority number.



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EE	Estonia	LR	Liberia	SG	Singapore		

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>RSJ05875W0</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 99/ 02691</b>	International filing date (day/month/year) <b>16/08/1999</b>	(Earliest) Priority Date (day/month/year) <b>18/08/1998</b>
Applicant <b>MADGE NETWORKS LIMITED et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

**4. With regard to the title,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**METHOD AND SYSTEM FOR PRIORITISED CONGESTION CONTROL IN A SWITCHING HUB**

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No.**

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1  
☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/02691

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L12/56 H04L12/44

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MACLEOD B: "GIGABIT ETHERNET FULL-DUPLEX REPEATERS" ANNUAL REVIEW OF COMMUNICATIONS, XP000720916 page 504, left-hand column, line 28 -page 505, right-hand column, line 19; figures 9,11	1-15
Y	WO 97 03549 A (CALDARA STEPHEN A ;ASCOM NEXION INC (US); HAUSER STEPHEN A (US); M) 6 February 1997 (1997-02-06) abstract page 4, line 20 -page 9, line 24 page 10, line 5 -page 11, line 33 page 20, line 23 -page 24, line 7 claims 2,3	1-15

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the international search

10 November 1999

Date of mailing of the international search report

18/11/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
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Authorized officer

Karavassilis, N

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/GB 99/02691

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 712 220 A (IBM) 15 May 1996 (1996-05-15) abstract page 2, line 30 -page 3, line 21 page 4, line 8 -page 5, line 41 _____	1-15



# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/02691

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9703549	A	06-02-1997	AU 6500796 A	18-02-1997
			AU 6500896 A	18-02-1997
			AU 6500996 A	18-02-1997
			AU 6501096 A	18-02-1997
			AU 6501496 A	18-02-1997
			AU 6501696 A	18-02-1997
			AU 6501796 A	18-02-1997
			AU 6501996 A	18-02-1997
			AU 6502096 A	18-02-1997
			AU 6502496 A	18-02-1997
			AU 6502596 A	18-02-1997
			AU 6502696 A	18-02-1997
			AU 6502796 A	18-02-1997
			AU 6503196 A	18-02-1997
			AU 6503296 A	18-02-1997
			AU 6503396 A	18-02-1997
			AU 6503496 A	18-02-1997
			AU 6503596 A	18-02-1997
			AU 6503696 A	18-02-1997
			AU 6503796 A	18-02-1997
			AU 6549196 A	18-02-1997
			AU 6549296 A	18-02-1997
			AU 6648496 A	18-02-1997
			AU 6648796 A	18-02-1997
			AU 6712496 A	18-02-1997
			AU 6712596 A	18-02-1997
			AU 6761896 A	18-02-1997
			AU 6762096 A	18-02-1997
			EP 0845181 A	03-06-1998
			EP 0839420 A	06-05-1998
			EP 0839419 A	06-05-1998
			EP 0872086 A	21-10-1998
			EP 0839421 A	06-05-1998
			EP 0839422 A	06-05-1998
			JP 11510323 T	07-09-1999
			JP 11510324 T	07-09-1999
			JP 11510003 T	31-08-1999
			JP 11510004 T	31-08-1999
			JP 11510005 T	31-08-1999
			JP 11510006 T	31-08-1999
			JP 11510007 T	31-08-1999
			JP 11510008 T	31-08-1999
			JP 11510009 T	31-08-1999
			JP 11510010 T	31-08-1999
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			JP 11510012 T	31-08-1999
			JP 11510013 T	31-08-1999
			JP 11510014 T	31-08-1999
			JP 11510327 T	07-09-1999
			JP 11510328 T	07-09-1999
EP 0712220	A	15-05-1996	JP 8214004 A	20-08-1996
			US 5787071 A	28-07-1998